

Arthur D. Little  
 Environmental Monitoring and Analysis Unit

Project Title : Tesoro  
 Data Package: B0301  
 Data Table: PAH - MS-MSD - Surrogate Corrected

Field ID	Blackfoot 4A/4B	Blackfoot 4A/4B			
Lab ID	98D3057 PCA	98D3057MS PCA			
Lab Batch	B0301	B0301			
File	DZ5481.D	DZ5482.D			
Sample Type	SAMP	QC			
Weight Basis	DRY	DRY			
Matrix	TISSUE	TISSUE			
Sample Size	1.44 g	1.34 g			
Percent Moisture	82.5	82.5			
Associated Blank	CA-S-20PB PCA	CA-S-20PB PCA			
Field Date	09/23/98	09/23/98			
Extract Date	12/08/98	12/08/98			
Analysis Date	12/17/98	12/17/98			
Min Reporting Limit	35	37			
Units	ug/Kg	ug/Kg	T	%R	Q
Naphthalene	32 JB	730	746	94	
C1-Naphthalenes	ND	ND			
C2-Naphthalenes	ND	ND			
C3-Naphthalenes	ND	ND			
C4-Naphthalenes	ND	ND			
Acenaphthylene	ND	680	746	91	
Acenaphthene	ND	700	746	94	
Biphenyl	ND	ND			
Fluorene	ND	730	746	98	
C1-Fluorenes	ND	ND			
C2-Fluorenes	ND	ND			
C3-Fluorenes	ND	ND			
Anthracene	50	530	746	64	
Phenanthrene	43	760	746	96	
C1-Phenanthrenes/anthracenes	97	88			
C2-Phenanthrenes/anthracenes	91	95			
C3-Phenanthrenes/anthracenes	ND	ND			
C4-Phenanthrenes/anthracenes	ND	ND			
Dibenzothiophene	ND	12 J			
C1-Dibenzothiophenes	55	35 J			
C2-Dibenzothiophenes	70	05			
C3-Dibenzothiophenes	ND	ND			
Fluoranthene	ND	760	746	102	
Pyrene	ND	720	746	97	
C1-Fluoranthenes/pyrenes	ND	ND			
C2-Fluoranthenes/pyrenes	ND	ND			
C3-Fluoranthenes/pyrenes	ND	ND			
Benzo[a]anthracene	ND	790	746	106	
Chrysene	ND	730	746	98	
C1-Chrysenes	ND	ND			
C2-Chrysenes	ND	ND			
C3-Chrysenes	ND	ND			
C4-Chrysenes	ND	ND			
Benzo[b]fluoranthene	ND	790	746	106	
Benzo[k]fluoranthene	ND	790	746	106	
Benzo[e]pyrene	ND	ND			
Benzo[a]pyrene	ND	780	746	105	
Perylene	ND	ND			
Indeno[1,2,3,-c,d]pyrene	ND	720	746	97	
Dibenzo[a,h]anthracene	ND	710	746	95	
Benzo[g,h,i]perylene	ND	690	746	92	
%d8-Naphthalene	48	75			
%d10-Acenaphthene	52	75			
%d10-Phenanthrene	55	79			
%d12-Benzo[a]pyrene	53	78			

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Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - MS-MSD - Surrogate Corrected

Field ID	Blackfoot 4A/4B				
Lab ID	98D3057MSD PCA				
Lab Batch	B0301				
File	DZ5483.D				
Sample Type	QC				
Weight Basis	DRY				
Matrix	TISSUE				
Sample Size	1.3 g				
Percent Moisture	82.5				
Associated Blank	CA-S-20PB PCA				
Field Date	09/23/98				
Extract Date	12/08/98				
Analysis Date	12/17/98				
Min Reporting Limit	38				
Units	ug/Kg	T	%R	Q	RPD
Naphthalene	730	769	91		3.2
C1-Naphthalenes	25 J				
C2-Naphthalenes	ND				
C3-Naphthalenes	ND				
C4-Naphthalenes	ND				
Acenaphthylene	710	769	92		1.1
Acenaphthene	710	769	92		2.2
Biphenyl	ND				
Fluorene	750	769	98		0
C1-Fluorenes	ND				
C2-Fluorenes	ND				
C3-Fluorenes	ND				
Anthracene	530	769	62		3.2
Phenanthrene	790	769	97		1
C1-Phenanthrenes/anthracenes	150				
C2-Phenanthrenes/anthracenes	220				
C3-Phenanthrenes/anthracenes	130				
C4-Phenanthrenes/anthracenes	ND				
Dibenzothiophene	18 J				
C1-Dibenzothiophenes	50				
C2-Dibenzothiophenes	130				
C3-Dibenzothiophenes	140				
Fluoranthene	770	769	100		2
Pyrene	750	769	98		1
C1-Fluoranthenes/pyrenes	69				
C2-Fluoranthenes/pyrenes	84				
C3-Fluoranthenes/pyrenes	64				
Benzo[a]anthracene	800	769	104		1.9
Chrysene	740	769	96		2.1
C1-Chrysenes	40				
C2-Chrysenes	31 J				
C3-Chrysenes	34 J				
C4-Chrysenes	ND				
Benzo[b]fluoranthene	820	769	107		0.94
Benzo[k]fluoranthene	790	769	103		2.9
Benzo[e]pyrene	ND				
Benzo[a]pyrene	790	769	103		1.9
Perylene	ND				
Indeno[1,2,3-c,d]pyrene	710	769	92		5.3
Dibenzo[a,h]anthracene	720	769	94		1
Benzo[g,h,i]perylene	640	769	83		10
%d8-Naphthalene	89				
%d10-Acenaphthene	93				
%d10-Phenanthrene	97				
%d12-Benzo[a]pyrene	97				

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Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - IRM - Surrogate Corrected

Field ID	SRM 1491			
Lab ID	BN18			
Lab Batch	B0301			
File	DZ5473.D			
Sample Type	QC			
Weight Basis	VOLUME			
Matrix	SRM			
Sample Size	0.1 mL			
Percent Moisture	NA			
Associated Blank	NA			
Field Date	NA			
Extract Date	NA			
Analysis Date	12/17/98			
Min Reporting Limit	250			
Units	ug/L	T	%D	Q
Naphthalene	6600	6890	-4.2	
C1-Naphthalenes	ND			
C2-Naphthalenes	ND			
C3-Naphthalenes	ND			
C4-Naphthalenes	ND			
Acenaphthylene	6400	6960	-8	
Acenaphthene	6200	7200	-15	
Biphenyl	7000	7000	0	
Fluorene	6200	7270	-15	
C1-Fluorenes	ND			
C2-Fluorenes	ND			
C3-Fluorenes	ND			
Anthracene	7800	7820	-0.3	
Phenanthrene	6800	7010	-3	
C1-Phenanthrenes/anthracenes	ND			
C2-Phenanthrenes/anthracenes	ND			
C3-Phenanthrenes/anthracenes	ND			
C4-Phenanthrenes/anthracenes	ND			
Dibenzothiophene	ND			
C1-Dibenzothiophenes	ND			
C2-Dibenzothiophenes	ND			
C3-Dibenzothiophenes	ND			
Fluoranthene	5900	5910	-0.2	
Pyrene	6000	5890	1.9	
C1-Fluoranthenes/pyrenes	ND			
C2-Fluoranthenes/pyrenes	ND			
C3-Fluoranthenes/pyrenes	ND			
Benzo[a]anthracene	3500	3590	-2.5	
Chrysene	6500	7030	-7.5	
C1-Chrysenes	ND			
C2-Chrysenes	ND			
C3-Chrysenes	ND			
C4-Chrysenes	ND			
Benzo[b]fluoranthene	5100	5250	-2.8	
Benzo[k]fluoranthene	5600	5570	0.54	
Benzo[e]pyrene	5700	5620	1.4	
Benzo[a]pyrene	7100	6790	4.6	
Perylene	7200	7120	1.1	
Indeno[1,2,3,-c,d]pyrene	6000	6290	-4.6	
Dibenzo[a,h]anthracene	5100	5180	-1.5	
Benzo[g,h,i]perylene	5100	5290	-3.6	
%d8-Naphthalene	105			
%d10-Acenaphthene	99			
%d10-Phenanthrene	95			
%d12-Benzo[a]pyrene	95			

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Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - NSC - Surrogate Corrected

Field ID	North Slope Crude			
Lab ID	BN14			
Lab Batch	B0301			
File	DZ5474.D			
Sample Type	QC			
weight Basis	OIL			
Matrix	OIL			
Sample Size	5 mg			
Percent Moisture	NA			
Associated Blank	NA			
Field Date	NA			
Extract Date	NA			
Analysis Date	12/17/98			
Min Reporting Limit	5			
Units	mg/Kg	T	%D	Q
Naphthalene	760	750	1.3	
C1-Naphthalenes	1700	1700	0	
C2-Naphthalenes	2000	2400	-17	
C3-Naphthalenes	1500	2000	-25	
C4-Naphthalenes	860	1200	-28	
Acenaphthylene	ND			
Acenaphthene	ND			
Biphenyl	220	220	0	
Fluorene	95	94	1.1	
C1-Fluorenes	220	240	-8.3	
C2-Fluorenes	330	350	-5.7	
C3-Fluorenes	370	400	-7.5	
Anthracene	ND			
Phenanthrene	280	260	7.7	
C1-Phenanthrenes/anthracenes	630	600	5	
C2-Phenanthrenes/anthracenes	700	740	-5.4	
C3-Phenanthrenes/anthracenes	540	540	0	
C4-Phenanthrenes/anthracenes	410	330	24	
Dibenzothiophene	230	240	-4.2	
C1-Dibenzothiophenes	480	500	-4	
C2-Dibenzothiophenes	640	740	-14	
C3-Dibenzothiophenes	590	660	-11	
Fluoranthene	ND			
Pyrene	12	14	-14	
C1-Fluoranthenes/pyrenes	85	83	2.4	
C2-Fluoranthenes/pyrenes	150	150	0	
C3-Fluoranthenes/pyrenes	180	170	5.9	
Benzo[a]anthracene	ND			
Chrysene	44	49	-10	
C1-Chrysenes	80	84	-4.8	
C2-Chrysenes	100	110	-9.1	
C3-Chrysenes	110	92	20	
C4-Chrysenes	84	75	12	
Benzo[b]fluoranthene	6 J	6.6	-9.1	
Benzo[k]fluoranthene	ND			
Benzo[e]pyrene	12	12	0	
Benzo[a]pyrene	ND			
Perylene	ND			
Indeno[1,2,3,-c,d]pyrene	ND			
Dibenzo[a,h]anthracene	ND			
Benzo[g,h,i]perylene	ND			
%d8-Naphthalene	110			
%d10-Acenaphthene	104			
%d10-Phenanthrene	100			
%d12-Benzo[a]pyrene	99			

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - Main - Surrogate Corrected

Field ID	SRM 1491	North Slope Crude	SPM HOSE001	Procedural Blank	1974a
Lab ID	BN18	BN14	98D2604RE	CA-S-20PB PCA	CA-S-21SRM PCA
Lab Batch	B0301	B0301	B0301	B0301	B0301
File	DZ5473.D	DZ5474.D	DZ5500.D	DZ5476.D	DZ5477.D
Sample Type	QC	QC	QC	QC	SAMP
Weight Basis	VOLUME	OIL	OIL	DRY	DRY
Matrix	SRM	OIL	OIL	TISSUE	TISSUE
Sample Size	0.1 mL	5 mg	10.1 mg	2 g	1.88 g
Percent Moisture	NA	NA	NA	NA	88.6
Associated Blank	NA	NA	NA	NA	CA-S-20PB PCA
Field Date	NA	NA	NA	NA	NA
Extract Date	NA	NA	NA	NA	12/08/98
Analysis Date	12/17/98	12/17/98	12/18/98	12/17/98	12/17/98
Min Reporting Limit	250	5	5	25	30
Units	ug/L	mg/Kg	mg/Kg	ug/Kg	ug/Kg
Naphthalene	6800	760	300	25	18 JB
C1-Naphthalenes	ND	1700	820	ND	13 J
C2-Naphthalenes	ND	2000	1300	ND	ND
C3-Naphthalenes	ND	1500	1400	ND	ND
C4-Naphthalenes	ND	860	950	ND	ND
Acenaphthylene	6400	ND	ND	ND	14 J
Acenaphthene	6200	ND	28	ND	7 J
Biphenyl	7000	220	66	ND	5.6 J
Fluorene	6200	95	110	ND	6.3 J
C1-Fluorenes	ND	220	300	ND	ND
C2-Fluorenes	ND	330	380	ND	ND
C3-Fluorenes	ND	370	330	ND	ND
Anthracene	7800	ND	27	ND	26 J
Phenanthrene	6800	280	300	ND	30
C1-Phenanthrenes/anthracenes	ND	630	570	ND	68
C2-Phenanthrenes/anthracenes	ND	700	540	ND	140
C3-Phenanthrenes/anthracenes	ND	540	300	ND	200
C4-Phenanthrenes/anthracenes	ND	410	160	ND	220
Dibenzothiophene	ND	230	120	ND	8.5 J
C1-Dibenzothiophenes	ND	480	250	ND	36
C2-Dibenzothiophenes	ND	640	300	ND	120
C3-Dibenzothiophenes	ND	590	250	ND	160
Fluoranthene	5900	ND	5.2	ND	150
Pyrene	6000	12	15	ND	140
C1-Fluoranthenes/pyrenes	ND	85	51	ND	160
C2-Fluoranthenes/pyrenes	ND	150	69	ND	140
C3-Fluoranthenes/pyrenes	ND	180	67	ND	100
Benzo[a]anthracene	3500	ND	ND	ND	52
Chrysene	6500	44	12	ND	94
C1-Chrysenes	ND	80	29	ND	110
C2-Chrysenes	ND	100	49	ND	100
C3-Chrysenes	ND	110	58	ND	ND
C4-Chrysenes	ND	84	56	ND	ND
Benzo[b]fluoranthene	5100	6	2.9 J	ND	80
Benzo[k]fluoranthene	5600	ND	ND	ND	19 J
Benzo[e]pyrene	5700	12	6.7	ND	110
Benzo[a]pyrene	7100	ND	2.3 J	ND	37
Perylene	7200	ND	2.2 J	ND	9 J
Indeno[1,2,3-c,d]pyrene	6000	ND	ND	ND	23 J
Dibenzo[a,h]anthracene	5100	ND	ND	ND	18 J
Benzo[g,h,i]perylene	5100	ND	3.5 J	14 J	51 B
Total PAH	120000	13000	99	39	2500
%d8-Naphthalene	105	110	89	85	82
%d10-Acenaphthene	99	104	91	80	87
%d10-Phenanthrene	95	100	95	91	89
%d12-Benzo[a]pyrene	95	99	95	86	79

Project Title : Tesoro  
Data Package: B0301  
Data Tables: PAH - Main - Surrogate Corrected

Field ID	Blackfoot 1	Blackfoot 6	Yellow Foot 1	Blackfoot 4A/4B	Blackfoot 4A/4B
Lab ID	98D3047 PCA	98D3051 PCA	98D3052 PCA	98D3057 PCA	98D3057MS PCA
Lab Batch	B0301	B0301	B0301	B0301	B0301
File	DZ5478.D	DZ5479.D	DZ5480.D	DZ5481.D	DZ5482.D
Sample Type	SAMP	SAMP	SAMP	SAMP	QC
Weight Basis	DRY	DRY	DRY	DRY	DRY
Matrix	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
Sample Size	1.42 g	1.7 g	1.45 g	1.44 g	1.34 g
Percent Moisture	83.8	81.7	81.5	82.5	82.5
Associated Blank	CA-S-20PB PCA	CA-S-20PB PCA	CA-S-20PB PCA	CA S 20PB PCA	CA S-20PB PCA
Field Date	09/23/98	09/23/98	09/23/98	09/23/98	09/23/98
Extract Date	12/08/98	12/08/98	12/08/98	12/08/98	12/08/98
Analysis Date	12/17/98	12/17/98	12/17/98	12/17/98	12/17/98
Min Reporting Limit	35	29	34	35	37
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Naphthalene	13 JB	16 JB	24 JB	32 JB	730
C1-Naphthalenes	ND	ND	ND	ND	ND
C2-Naphthalenes	ND	ND	ND	ND	ND
C3-Naphthalenes	ND	ND	ND	ND	ND
C4-Naphthalenes	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	680
Acenaphthene	ND	ND	ND	ND	700
Biphenyl	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	730
C1-Fluorenes	ND	ND	ND	ND	ND
C2-Fluorenes	ND	ND	ND	ND	ND
C3-Fluorenes	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	530
Phenanthrene	29 J	39	14 J	43	760
C1-Phenanthrenes/anthracenes	42	95	ND	97	88
C2-Phenanthrenes/anthracenes	63	60	ND	91	95
C3-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
C4-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
Dibenzothiophene	ND	11 J	ND	ND	12 J
C1-Dibenzothiophenes	ND	55	ND	55	35 J
C2-Dibenzothiophenes	ND	56	ND	76	65
C3-Dibenzothiophenes	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	760
Pyrene	ND	ND	ND	ND	720
C1-Fluoranthenes/pyrenes	ND	ND	ND	ND	ND
C2-Fluoranthenes/pyrenes	ND	ND	ND	ND	ND
C3-Fluoranthenes/pyrenes	ND	ND	ND	ND	ND
Benzo[a]anthracene	ND	ND	ND	ND	790
Chrysene	ND	ND	ND	ND	730
C1-Chrysenes	ND	ND	ND	ND	ND
C2-Chrysenes	ND	ND	ND	ND	ND
C3-Chrysenes	ND	ND	ND	ND	ND
C4-Chrysenes	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	ND	ND	ND	ND	790
Benzo[k]fluoranthene	ND	ND	ND	ND	790
Benzo[e]pyrene	ND	ND	ND	ND	ND
Benzo[a]pyrene	ND	ND	ND	ND	780
Perylene	ND	ND	ND	ND	ND
Indeno[1,2,3-c,d]pyrene	ND	ND	ND	ND	720
Dibenzo[a,h]anthracene	ND	ND	ND	ND	710
Benzo[g,h,i]perylene	ND	ND	ND	ND	690
Total PAH	150	350	30	440	12000
%d8-Naphthalene	78	58	68	48	75
%d10-Acenaphthene	81	62	68	52	75
%d10-Phenanthrene	82	67	69	55	79
%d12-Benzo[a]pyrene	82	63	64	53	78

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - Main - Surrogate Corrected

Field ID	Blackfoot 4A/4B	SITE1-AHU	SITE2S-KIPU	SITE2N-KIPU	SITE3-KIPU
Lab ID	98D3057MSD PCA	98D4265 PCA	98D4266 PCA	98D4267 PCA	98D4268 PCA
Lab Batch	B0301	B0301	B0301	B0301	B0301
File	DZ5483.D	DZ5484.D	DZ5486.D	DZ5487.D	DZ5488.D
Sample Type	QC	SAMP	SAMP	SAMP	SAMP
weight basis	DRY	DRY	DRY	DRY	DRY
Matrix	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
Sample Size	1.3 g	1.62 g	1.72 g	1.99 g	1.43 g
Percent Moisture	82.5	78.7	80.5	78.2	79.1
Associated Blank	CA S 20PB PCA	CA S 20PB PCA	CA S 20PB PCA	CA S 20PB PCA	CA S 20PB PCA
Field Date	09/23/98	09/23/98	09/23/98	09/23/98	09/23/98
Extract Date	12/08/98	12/08/98	12/08/98	12/08/98	12/08/98
Analysis Date	12/17/98	12/17/98	12/17/98	12/17/98	12/17/98
Min Reporting Limit	38	31	29	25	35
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Naphthalene	730	31 B	13 JB	12 JB	17 JB
C1-Naphthalenes	25 J	ND	14 J	ND	ND
C2-Naphthalenes	ND	ND	ND	ND	ND
C3-Naphthalenes	ND	ND	ND	ND	ND
C4-Naphthalenes	ND	ND	ND	ND	ND
Acenaphthylene	710	14 J	ND	ND	ND
Acenaphthene	710	18 J	ND	ND	ND
Biphenyl	ND	ND	ND	ND	ND
Fluorene	750	ND	ND	ND	ND
C1-Fluorenes	ND	ND	ND	ND	ND
C2-Fluorenes	ND	ND	ND	ND	ND
C3-Fluorenes	ND	ND	ND	ND	ND
Anthracene	530	8.1 J	ND	ND	ND
Phenanthrene	790	26 J	20 J	14 J	21 J
C1-Phenanthrenes/anthracenes	150	ND	19 J	ND	ND
C2-Phenanthrenes/anthracenes	220	ND	ND	ND	ND
C3-Phenanthrenes/anthracenes	130	ND	ND	ND	ND
C4-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
Dibenzothiophene	18 J	ND	ND	ND	ND
C1-Dibenzothiophenes	50	ND	ND	ND	ND
C2-Dibenzothiophenes	130	ND	ND	ND	ND
C3-Dibenzothiophenes	140	ND	ND	ND	ND
Fluoranthene	770	15 J	7 J	ND	ND
Pyrene	750	14 J	6.9 J	ND	ND
C1-Fluoranthenes/pyrenes	69	ND	ND	ND	ND
C2-Fluoranthenes/pyrenes	84	ND	ND	ND	ND
C3-Fluoranthenes/pyrenes	64	ND	ND	ND	ND
Benzo[a]anthracene	800	ND	ND	ND	ND
Chrysene	740	15 J	ND	ND	ND
C1-Chrysenes	40	ND	ND	ND	ND
C2-Chrysenes	31 J	ND	ND	ND	ND
C3-Chrysenes	34 J	ND	ND	ND	ND
C4-Chrysenes	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	820	16 J	ND	ND	ND
Benzo[k]fluoranthene	790	14 J	ND	ND	ND
Benzo[e]pyrene	ND	ND	ND	ND	ND
Benzo[a]pyrene	790	13 J	ND	ND	ND
Perylene	ND	ND	ND	ND	ND
Indeno[1,2,3,-c,d]pyrene	710	16 J	ND	ND	ND
Dibenzo[a,h]anthracene	720	10 J	ND	ND	ND
Benzo[g,h,i]perylene	640	15 JB	ND	ND	ND
Total PAH	13000	220	60	20	30
%d8-Naphthalene	89	65	88	72	76
%d10-Acenaphthene	93	66	88	74	74
%d10-Phenanthrene	97	70	89	76	78
%d12-Benzo[a]pyrene	97	67	85	73	78

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - Main - Surrogate Corrected

	SITE4-KIPU	SITE5-NINI	SITE6-KEE	SITE 1 AHU - JAR 2	SITE 2S KIPU -
Field ID					JAR 2
Lab ID	98D4269 PCA	98D4270 PCA	98D4271 PCA	98D4411 PCA	98D4412 PCA
Lab Batch	B0301	B0301	B0301	B0301	B0301
File	DZ5489.D	DZ5490.D	DZ5491.D	DZ5492.D	DZ5493.D
Sample Type	SAMP	SAMP	SAMP	SAMP	SAMP
Weight Basis	DRY	DRY	DRY	DRY	DRY
Matrix	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
Sample Size	1.47 g	2.14 g	1.78 g	1.78 g	2.17 g
Percent Moisture	80	79.6	80.3	80.1	79.7
Associated Blank	CA-S-20PB PCA	CA-S-20PB PCA	CA-S-20PB PCA	CA-S-20PB PCA	CA-S-20PB PCA
Field Date	09/23/98	09/23/98	09/23/98	09/23/98	09/23/98
Extract Date	12/08/98	12/08/98	12/08/98	12/08/98	12/08/98
Analysis Date	12/17/98	12/17/98	12/17/98	12/18/98	12/18/98
Min Reporting Limit	34	23	28	28	23
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Naphthalene	17 JB	9.1 JB	15 JB	16 JB	18 JB
C1-Naphthalenes	ND	ND	ND	ND	16 J
C2-Naphthalenes	ND	ND	ND	ND	ND
C3-Naphthalenes	ND	ND	ND	ND	ND
C4-Naphthalenes	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND
Biphenyl	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND
C1-Fluorenes	ND	ND	ND	ND	ND
C2-Fluorenes	ND	ND	ND	ND	ND
C3-Fluorenes	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND
Phenanthrene	15 J	8 J	10 J	13 J	13 J
C1-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
C2-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
C3-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
C4-Phenanthrenes/anthracenes	ND	ND	ND	ND	ND
Dibenzothophene	ND	ND	ND	ND	ND
C1-Dibenzothophenes	ND	ND	ND	ND	ND
C2-Dibenzothophenes	ND	ND	ND	ND	ND
C3-Dibenzothophenes	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND
C1-Fluoranthenes/pyrenes	ND	ND	ND	ND	ND
C2-Fluoranthenes/pyrenes	ND	ND	ND	ND	ND
C3-Fluoranthenes/pyrenes	ND	ND	ND	ND	ND
Benzo[a]anthracene	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND
C1-Chrysenes	ND	ND	ND	ND	ND
C2-Chrysenes	ND	ND	ND	ND	ND
C3-Chrysenes	ND	ND	ND	ND	ND
C4-Chrysenes	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	ND	ND	ND	ND	ND
Benzo[e]pyrene	ND	ND	ND	ND	ND
Benzo[a]pyrene	ND	ND	ND	ND	ND
Perylene	ND	ND	ND	ND	ND
Indeno[1,2,3,-c,d]pyrene	ND	ND	ND	ND	ND
Dibenzo[a,h]anthracene	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	ND	ND	ND	ND	ND
Total PAH	32	17	25	29	47
%d8-Naphthalene	75	83	80	87	68
%d10-Acenaphthene	75	81	82	88	72
%d10-Phenanthrene	79	81	84	69	76
%d12-Benzo[a]pyrene	81	80	88	68	73



Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - MS-MSD - Surrogate Corrected

Field ID	Blackfoot 4A/4B	Blackfoot 4A/4B			
Lab ID	98D3057 PCA	98D3057MS PCA			
Lab Batch	B0301	B0301			
File	DZ5481.D	DZ5482.D			
Sample Type	SAMP	QC			
Weight Basis	DRY	DRY			
Matrix	TISSUE	TISSUE			
Sample Size	1.44 g	1.34 g			
Percent Moisture	82.5	82.5			
Associated Blank	CA-S-20PB PCA	CA-S-20PB PCA			
Field Date	09/23/98	09/23/98			
Extract Date	12/08/98	12/08/98			
Analysis Date	12/17/98	12/17/98			
Min Reporting Limit	35	37			
Units	ug/Kg	ug/Kg	T	%R	Q
Naphthalene	32 JB	730	746	94	
C1-Naphthalenes	ND	ND			
C2-Naphthalenes	ND	ND			
C3-Naphthalenes	ND	ND			
C4-Naphthalenes	ND	ND			
Acenaphthylene	ND	680	746	91	
Acenaphthene	ND	700	746	94	
Biphenyl	ND	ND			
Fluorene	ND	730	746	98	
C1-Fluorenes	ND	ND			
C2-Fluorenes	ND	ND			
C3-Fluorenes	ND	ND			
Anthracene	50	530	746	64	
Phenanthrene	43	760	746	96	
C1-Phenanthrenes/anthracenes	97	00			
C2-Phenanthrenes/anthracenes	91	95			
C3-Phenanthrenes/anthracenes	ND	ND			
C4-Phenanthrenes/anthracenes	ND	ND			
Dibenzothiophene	ND	12 J			
C1-Dibenzothiophenes	55	35 J			
C2-Dibenzothiophenes	76	65			
C3-Dibenzothiophenes	ND	ND			
Fluoranthene	ND	760	746	102	
Pyrene	ND	720	746	97	
C1-Fluoranthenes/pyrenes	ND	ND			
C2-Fluoranthenes/pyrenes	ND	ND			
C3-Fluoranthenes/pyrenes	ND	ND			
Benzo[a]anthracene	ND	790	746	106	
Chrysene	ND	730	746	98	
C1-Chrysenes	ND	ND			
C2-Chrysenes	ND	ND			
C3-Chrysenes	ND	ND			
C4-Chrysenes	ND	ND			
Benzo[b]fluoranthene	ND	790	746	106	
Benzo[k]fluoranthene	ND	790	746	106	
Benzo[e]pyrene	ND	ND			
Benzo[a]pyrene	ND	780	746	105	
Perylene	ND	ND			
Indeno[1.2.3.-c.d]pyrene	ND	720	746	97	
Dibenzo[a,h]anthracene	ND	710	746	95	
Benzo[g,h,i]perylene	ND	690	746	92	
%d8-Naphthalene	48	75			
%d10-Acenaphthene	52	75			
%d10-Phenanthrene	55	79			
%d12-Benzo[a]pyrene	53	78			

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - MS-MSD - Surrogate Corrected

Field ID	Blackfoot 4A/4B				
Lab ID	98D3057MSD PCA				
Lab Batch	B0301				
File	DZ5483.D				
Sample Type	QC				
Weight Basis	DRY				
Matrix	TISSUE				
Sample Size	1.3 g				
Percent Moisture	82.5				
Associated Blank	CA-S-20PB PCA				
Field Date	09/23/98				
Extract Date	12/08/98				
Analysis Date	12/17/98				
Min Reporting Limit	38				
Units	ug/Kg	T	%R	Q	RPD
					Q
Naphthalene	730	769	91		3.2
C1-Naphthalenes	25 J				
C2-Naphthalenes	ND				
C3-Naphthalenes	ND				
C4-Naphthalenes	ND				
Acenaphthylene	710	769	92		1.1
Acenaphthene	710	769	92		2.2
Biphenyl	ND				
Fluorene	750	769	98		0
C1-Fluorenes	ND				
C2-Fluorenes	ND				
C3-Fluorenes	ND				
Anthracene	530	769	62		3.2
Phenanthrene	790	769	97		1
C1-Phenanthrenes/anthracenes	150				
C2-Phenanthrenes/anthracenes	220				
C3-Phenanthrenes/anthracenes	130				
C4-Phenanthrenes/anthracenes	ND				
Dibenzothiophene	18 J				
C1-Dibenzothiophenes	50				
C2-Dibenzothiophenes	130				
C3-Dibenzothiophenes	140				
Fluoranthene	770	769	100		2
Pyrene	750	769	98		1
C1-Fluoranthenes/pyrenes	69				
C2-Fluoranthenes/pyrenes	84				
C3-Fluoranthenes/pyrenes	64				
Benzo[a]anthracene	800	769	104		1.9
Chrysene	740	769	96		2.1
C1-Chrysenes	40				
C2-Chrysenes	31 J				
C3-Chrysenes	34 J				
C4-Chrysenes	ND				
Benzo[b]fluoranthene	820	769	107		0.94
Benzo[k]fluoranthene	790	769	103		2.9
Benzo[e]pyrene	ND				
Benzo[a]pyrene	790	769	103		1.9
Perylene	ND				
Indeno[1,2,3,-c,d]pyrene	710	769	92		5.3
Dibenzo[a,h]anthracene	720	769	94		1
Benzo[g,h,i]perylene	640	769	83		10
%d8-Naphthalene	89				
%d10-Acenaphthene	93				
%d10-Phenanthrene	97				
%d12-Benzo[a]pyrene	97				

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - IRM - Surrogate Corrected

Field ID	SRM 1491			
Lab ID	BN18			
Lab Batch	B0301			
File	DZ5473.D			
Sample Type	QC			
Weight Basis	VOLUME			
Matrix	SRM			
Sample Size	0.1 mL			
Percent Moisture	NA			
Associated Blank	NA			
Field Date	NA			
Extract Date	NA			
Analysis Date	12/17/98			
Min Reporting Limit	250			
Units	ug/L	T	%D	Q
Naphthalene	6600	6890	-4.2	
C1-Naphthalenes	ND			
C2-Naphthalenes	ND			
C3-Naphthalenes	ND			
C4-Naphthalenes	ND			
Acenaphthylene	6400	6960	-8	
Acenaphthene	6200	7280	-15	
Biphenyl	7000	7000	0	
Fluorene	6200	7270	-15	
C1-Fluorenes	ND			
C2-Fluorenes	ND			
C3-Fluorenes	ND			
Anthracene	7800	7820	-0.3	
Phenanthrene	6800	7010	-3	
C1-Phenanthrenes/anthracenes	ND			
C2-Phenanthrenes/anthracenes	ND			
C3-Phenanthrenes/anthracenes	ND			
C4-Phenanthrenes/anthracenes	ND			
Dibenzothiophene	ND			
C1-Dibenzothiophenes	ND			
C2-Dibenzothiophenes	ND			
C3-Dibenzothiophenes	ND			
Fluoranthene	5900	5910	-0.2	
Pyrene	6000	5890	1.9	
C1-Fluoranthenes/pyrenes	ND			
C2-Fluoranthenes/pyrenes	ND			
C3-Fluoranthenes/pyrenes	ND			
Benzo[a]anthracene	3500	3590	-2.5	
Chrysene	6500	7030	-7.5	
C1-Chrysenes	ND			
C2-Chrysenes	ND			
C3-Chrysenes	ND			
C4-Chrysenes	ND			
Benzo[b]fluoranthene	5100	5250	-2.8	
Benzo[k]fluoranthene	5600	5570	0.54	
Benzo[e]pyrene	5700	5620	1.4	
Benzo[a]pyrene	7100	6790	4.6	
Perylene	7200	7120	1.1	
Indeno[1,2,3,-c,d]pyrene	6000	6290	-4.6	
Dibenzo[a,h]anthracene	5100	5180	-1.5	
Benzo[g,h,i]perylene	5100	5290	-3.6	
%d8-Naphthalene	105			
%d10-Acenaphthene	99			
%d10-Phenanthrene	95			
%d12-Benzo[a]pyrene	95			

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - NSC - Surrogate Corrected

North Slope Crude				
Field ID	BN14			
Lab ID	B0301			
Lab Batch	DZ5474.D			
File	QC			
Sample Type	OIL			
Weight Basis	OIL			
Matrix	5 mg			
Sample Size	NA			
Percent Moisture	NA			
Associated Blank	NA			
Field Date	NA			
Extract Date	NA			
Analysis Date	12/17/98			
Min Reporting Limit	5			
Units	mg/Kg	T	%D	Q
Naphthalene	760	750	1.3	
C1-Naphthalenes	1700	1700	0	
C2-Naphthalenes	2000	2400	-17	
C3-Naphthalenes	1500	2000	-25	
C4-Naphthalenes	860	1200	-28	
Acenaphthylene	ND			
Acenaphthene	ND			
Biphenyl	220	220	0	
Fluorene	95	94	1.1	
C1-Fluorenes	220	240	-8.3	
C2-Fluorenes	330	350	-5.7	
C3-Fluorenes	370	400	-7.5	
Anthracene	ND			
Phenanthrene	280	260	7.7	
C1-Phenanthrenes/anthracenes	630	600	5	
C2-Phenanthrenes/anthracenes	700	740	-5.4	
C3-Phenanthrenes/anthracenes	540	540	0	
C4-Phenanthrenes/anthracenes	410	330	24	
Dibenzothiophene	230	240	-4.2	
C1-Dibenzothiophenes	480	500	-4	
C2-Dibenzothiophenes	640	740	-14	
C3-Dibenzothiophenes	590	660	-11	
Fluoranthene	ND			
Pyrene	12	14	-14	
C1-Fluoranthenes/pyrenes	85	83	2.4	
C2-Fluoranthenes/pyrenes	150	150	0	
C3-Fluoranthenes/pyrenes	180	170	5.9	
Benzo[a]anthracene	ND			
Chrysene	44	49	-10	
C1-Chrysenes	80	81	1.8	
C2-Chrysenes	100	110	-9.1	
C3-Chrysenes	110	92	20	
C4-Chrysenes	84	75	12	
Benzo[h]fluoranthene	6 J	6.6	0.1	
Benzo[k]fluoranthene	ND			
Benzo[e]pyrene	12	12	0	
Benzo[a]pyrene	ND			
Perylene	ND			
Indeno[1,2,3,-c,d]pyrene	ND			
Dibenzo[a,h]anthracene	ND			
Benzo[g,h,i]perylene	ND			
%d8-Naphthalene	110			
%d10-Acenaphthene	104			
%d10-Phenanthrene	100			
%d12-Benzo[a]pyrene	99			

Project Title : Tesoro  
Data Package: B0301  
Data Table: PAH - SRM - Surrogate Corrected

Field ID	1974a				
Lab ID	CA-S-21SRM	PCA			
Lab Batch	B0301				
File	DZ5477.D				
Sample Type	SAMP				
Weight Basis	DRY				
Matrix	TISSUE				
Sample Size	1.68	g			
Percent Moisture	NA				
Associated Blank	CA-S-20PB	PCA			
Field Date	NA				
Extract Date	12/08/98				
Analysis Date	12/17/98				
Min Reporting Limit	30				
Units	ug/Kg		T %D	Q	
Naphthalene	18	J	23.5	-23	
C1-Naphthalenes	13	J			
C2-Naphthalenes		ND			
C3-Naphthalenes		ND			
C4-Naphthalenes		ND			
Acenaphthylene	14	J			
Acenaphthene	7	J			
Biphenyl	5.8	J			
Fluorene	6.3	J			
C1-Fluorenes		ND			
C2-Fluorenes		ND			
C3-Fluorenes		ND			
Anthracene	26	J	6.1	330	&
Phenanthrene	30		22.2	35	
C1-Phenanthrenes/anthracenes	68				
C2-Phenanthrenes/anthracenes	140				
C3-Phenanthrenes/anthracenes	200				
C4-Phenanthrenes/anthracenes	220				
Dibenzothiophene	8.5	J			
C1-Dibenzothiophenes	38				
C2-Dibenzothiophenes	120				
C3-Dibenzothiophenes	160				
Fluoranthene	150		164	-8.4	
Pyrene	140		152	-7.8	
C1-Fluoranthenes/pyrenes	160				
C2-Fluoranthenes/pyrenes	140				
C3-Fluoranthenes/pyrenes	100				
Benzo[a]anthracene	52		32.5	60	&
Chrysene	94		94.9	-1	
C1-Chrysenes	110				
C2-Chrysenes	100				
C3-Chrysenes		ND			
C4-Chrysenes		ND			
Benzo[b]fluoranthene	80		48.4	72	&
Benzo[k]fluoranthene	19	J	20.2	-5.8	
Benzo[e]pyrene	110		84	31	
Benzo[a]pyrene	37		15.6	140	&
Perylene	9	J	7.68	17	
Indeno[1,2,3,-c,d]pyrene	23	J	14.2	62	&
Dibenzo[a,h]anthracene	18	J			
Benzo[g,h,i]perylene	51		22	130	&
%d8-Naphthalene	82				
%d10-Acenaphthene	87				
%d10-Phenanthrene	89				
%d12-Benzo[a]pyrene	79				

PROJECT NAME: SPM Hose Spill - Tesoro SAMPLING EVENT: 9/23/98 & 11/2-3/98 opihii  
 PROJECT NUMBER: 304201 TASK NUMBER: 2000  
 LABORATORY: ADL:Hle REPORT ID: B0301  
 ENTRIX CONTACT: Judy Nedoff REVIEWER: Judy Nedoff  
 DATE COMPLETED: 1/12/98 SIGNATURE: Judy Nedoff

**SAMPLE INVENTORY**

ANALYSIS	Method	Matrix	Instrumen- tation	Data units reported	Total # of samples	# of trip blanks	Date(s) collected	Total # of samples analyzed	# trip blanks analyzed
Airylated PAH	EPA 8270	tissue	GC/MS	ug/kg	18	NA	9/23, 11/2-3/98	18	NA

Notes: \_\_\_\_\_

**REPORT CONTENT**

- |  | Yes                                 | No                                  | NA                       |
|--|-------------------------------------|-------------------------------------|--------------------------|
| 1) Is there a signature and title of the person accepting responsibility for the report?                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 2) Has the laboratory submitted an electronic copy of the data?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 3) Are all report pages numbered (including total number of pages or indication of last report page)?      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 4) Are all pages of the report legible?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 5) Is there a legend for sample data qualifiers?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6) Is chain of custody documentation included in the report?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 7) Was a laboratory sample receiving/integrity report included in the report?<br>Any noted problems? _____ | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |
| 8) Were samples properly preserved for the particular matrices and analyses?                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 9) Were sample collection procedures performed as described in project documents?                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 10) Do receipt dates match chain of custody documentation?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                          |

	Yes	No	NA
11) Have all requested analyses been conducted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12) Have all analyses been conducted by this laboratory? If No, which? _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13) Are all dates (i.e., collection date(s), receipt date(s), extraction date(s), analysis date(s), reporting dates, etc.), listed for all samples and consistent throughout the report? Identify omissions and inconsistencies on page(s) _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14) Were all specified sample holding times met? If no, which? _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15) Is sample identification consistent throughout the report? Circle inconsistencies and identify pages _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
16) Are test methods listed for each analysis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
17) Are the test methods listed appropriate for the requested analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18) Were the test methods project specific or <u>lab specific</u> or standard? Circle Choice			
19) Are complete results reported for each analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
20) Are results reported with a consistent and appropriate number of significant figures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21) Are results reported using appropriate concentration units?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
22) Are MDLs or PQLs reported (or on record) for each analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
23) Have data below MDL or PQL been correctly qualified? If not, identify data with a check mark (✓)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24) Have data above the MDL or PQL been correctly left unqualified? Identify data with asterisks (*)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25) Have the required Matrix QC samples been analyzed?			
A. One trip blank per sample set?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B. One field blank per sample set?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
C. One field replicate per 20 samples or sample set?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. One equipment rinsate blank per 20 samples or batch, whichever is more frequent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
E. One lab reagent or procedural blank per extraction batch or change in reagents?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. One Matrix Spike (MS) or Blank Spike sample per 20 samples or batch, whichever is more frequent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. One Matrix Spike Duplicate (MSD) or Blank Spike Duplicate per 20 samples or batch, whichever is more frequent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. One laboratory duplicate per 20 samples or batch, whichever is more frequent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I. One SRM or QC check standard per 20 samples or batch, whichever is more frequent?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. One Continuing calibration standard per 20 samples or batch, whichever is more frequent?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
K. Other (Define) _____	<input type="checkbox"/>		
26) Do the concentrations of all analytes in blanks fall below IDL, MDL, or <u>PQL</u> (circle applicable) for all parameters? If no, explain <u>Napthalene = 202 at 25 ug/kg</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

REPORT ID: B0301

- |   | Yes                                 | No                                  | NA                                  |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 27) Were surrogates used where appropriate?<br><i>Identify analyses</i> <u>All field and all lab Q1 samples</u>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 28) Do surrogate recoveries meet acceptance criteria (accuracy)?<br><i>Acceptance criteria</i> <u>d8-Naph: 35-125%; d10-Ace &amp; d10-Phe: 40-125%; d12-BaP: 40-135%</u><br><i>If no, note exceptions and qualify appropriately</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 29) Do percent recoveries for Matrix Spike/ Matrix Spike Duplicate (MS/MSD) meet acceptance criteria (accuracy) for the test method/sample matrix?<br><i>Acceptance criteria</i> <u>40-150% recovery</u>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 30) Do the Relative Percent Differences (RPDs) for MS/MSD meet acceptance criteria (precision) for the test method/sample matrix?<br><i>Acceptance criteria</i> <u>≤ 35</u>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 31) Do percent recoveries for laboratory control spikes (LCS) meet acceptance criteria (accuracy) for the test method/sample matrix?<br><i>Acceptance criteria</i>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 32) Do the Relative Percent Difference (RPDs) for laboratory duplicate pairs meet acceptance criteria (precision) for the test method/sample matrix?<br><i>Acceptance criteria</i>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 33) Do the Relative Percent Difference (RPDs) for field (blind) duplicate pairs meet acceptance criteria (precision) for the test method/sample matrix?<br><i>Acceptance criteria</i>   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 34) Are SRM/Laboratory check standard recoveries within acceptance criteria for the test method/sample matrix?<br><i>Acceptance criteria</i> <u>SRM 1491: ±15% ; SRM 1974a (tissue) ± 35%</u><br><i>Circle exceptions</i>           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 35) Is the discussion of any report variance consistent with the data reported?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 36) Is the data package free of deviations from, additions to, or exclusions from the test method, and any other information relevant to a specific test?<br><i>Notes</i>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 37) Have all qualified data been completely/correctly identified?<br><i>If not, data on which page</i>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 38) Is the quality of the data package acceptable without revisions by the laboratory?<br><i>If no, attach corrective action summary</i>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |

SRM 1491      1974a

**QUALIFIERS ASSIGNED BY ENTRIX**

Data qualified with a U indicates that the value reported for the sample is less than 5 times the amount of that analyte detected in the blank. The U qualifier was applied to the data according to USEPA Contract Laboratory Program (CLP) protocol as follows:

1. If the level of an analyte reported in the sample is greater than the MDL for that analyte in that sample, a U is placed next to the sample result if it is less than 5 times the level in the blank.
2. If the level reported in the sample is less than the MDL (qualified by the laboratory with a J) and less than 5 times the level in the blank, the sample result and J qualifier are crossed out and replaced with the MDL for that analyte in that sample followed by U. Sample results that exceed the MDL and are greater than 5 times the level in the blank are not qualified.

Others: